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EXPLORING COMMUNITY FORESTRY:

An Examination of the Collaborative Community Forestry Initiative in Ghana, West Africa and a Methodology for Community Forestry Leadership

by

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B.A. Montana State University, Bozeman. 1996

Baccalaureate Honors Degree, MSU Honors Program. 1996

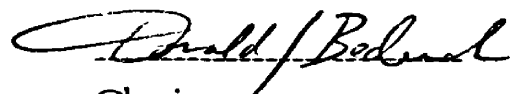
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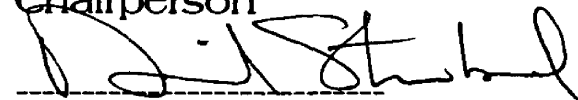
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Exploring Community Forestry: An Examination of the Collaborative Community Forestry Initiative in Ghana, West Africa and a Methodology for Community Forestry Leadership.

Director: Dr. Donald Bedunah 

As a Peace Corps Volunteer working with the Collaborative Community Forestry Initiative (CCFI) in Ghana, West Africa from 1996 to 1998, I examined the organizational processes designed to increase community participation in rural reforestation efforts. I found many participation structures embedded in the formal and informal organization of CCFI and examples of participatory leadership and employee and citizen participation. I found that in many ways these participatory structures were effective in planting trees in the field but in some specific cultural contexts certain organizational structures actually created a barrier to effective forestry development. To avoid this barrier, my community developed a highly adaptive project entitled People Learning and Nurturing Trees (PLANT). PLANT was designed to be free of form in order to implement customized small-scale reforestation projects by individual stakeholders. In this paper, I describe the organization of PLANT in the Ghanaian community of Kulugungu and in the Montanan community of Missoula to illustrate how projects are unique based upon different ecological and cultural conditions.

PLANT is a project title and a participatory research method. PLANT can be used to assess conditions to design and implement adaptive forestry development projects. In Ghana, PLANT took form as formal, non-hierarchical organizations of landowners working with the CCFI tree nursery in Kulugungu to plant trees. In Missoula, PLANT took form as an informal network of neighbors, schools, local businesses, and other groups to learn about and plant trees.

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Introduction

From 1996 to 1998 I served as a Peace Corps Volunteer (PCV) in Ghana, West Africa. To promote the Peace Corp's mission of making peace through international friendship, three goals are made clear to each volunteer during pre-service training. The first goal is to transfer technical skills and knowledge to help developing countries. During my service, I served as a forester and managed a community agro forestry enterprise that focused on planting trees for environmental restoration as a sustainable business. The second goal is to share culture between the U.S. and the host country. To promote this goal, PCV's are immersed in the culture of the communities with whom they serve. The second goal became my way of life as I lived for two years without electricity and running water in the rural farming community of Kulugungu in Ghana's Upper East Region. After serving a two year stint in a foreign country, PCV's pass a "continuation of service" (COS) date when she or he returns to the U.S. and starts fulfilling the third goal of the Peace Corps. The third goal is for the Returned Peace Corps Volunteer (RPCV) to bring the Peace Corps experience back to the U.S. to help foster cultural awareness in the U.S. Since my COS date, I have shared my stories from the Peace Corps with friends, schools, and a

wide variety of audiences.

This paper is a part of my continuing mission as an RPCV and a requirement for a Master of Science degree in the International Resource Management Program (IRM) in the School of Forestry at the University of Montana. The IRM program integrates graduate work with Peace Corps service. To the volunteer, the Peace Corps experience is data rich of epic proportions. Choosing what to study is a tough challenge when everything is fascinating. In this paper I do not attempt to discuss the magnitude of the Peace Corps experience. I learned so much culturally, living in Ghana, and technically, researching and implementing forestry projects, that the whole experience cannot be justly accounted for using print. I choose to focus this paper on how culture and participatory structures affected the international forestry development project I worked with in Ghana.

Understanding the culture and organizational processes of an international development organization is valuable to determine which processes can hinder or accommodate development efforts “in the field.” These lessons I learned in Ghana may help the community forestry leader adopt an adaptive management style that is in rhythm with specific cultural and ecological dynamics and the

local pace of change.

In this paper I first research the notions of culture, community, and participation as concepts important to the study and process of community forestry. Afterward, I take these notions and study participation in the organizational context of the Collaborative Community Forestry Initiative (CCFI), a reforestation project in Ghana. Afterwards, I discuss a community forestry practice that emerged in Kulugungu known as People Learning and Nurturing Trees (PLANT). PLANT is designed as a methodology to study and implement community forestry activities in specific cultural and ecological scenarios. Hopefully, the information I present in this document may help people understand and practice forestry development in their communities.

Background

Community forestry denotes a range of activities that link people with forests and the benefits derived from them (Arnold, 1991). The context and level of intensity of community forestry varies across culture and communities. In CCFI, community forestry describes the organization of people from distinct communities working to plant trees in response to deforestation. Communities are distinguished by how their culture and how they are organized.

Culture is the shared attitudes, beliefs, norms and behaviors of a group and a dynamic system of explicit and implicit rules (Matsumoto, 2000). Culture varies from traditional cultures to modern cultures. Traditional cultures are highly contextual and described as less economically and industrially developed and with less social mobility. Generally speaking, Ghana can be considered as having a traditional culture. These cultures place value on cultural norms and maintaining group harmony. In Ghana, many people live with their parents all their lives and a household is often comprised of many generations. The interests of individuals in collectivist cultures are considered subordinate to the interests of the group (Augsburg, 1992). According to Augsburg (1992), traditional cultures have a collective identity and are familio-centric or sociocentric and polychromatic. Personal status is gained according to position, relationships, and network. Several tribes lived around Kulugungu. Each tribe had a local and regional Chief responsible for a community comprised of linkages through an extended family system. The rainy season or harvest agenda influenced the schedule for the people of Kulugungu than pre-established personal itineraries.

On the other end of the cultural spectrum, modern cultures are

low-context and typically economically developed, capitalistic, industrial and socially mobile. The U.S. is a good example of a country with a tradition of individualistic thinking and action. I was raised in a culture where individualism and personal creativity can be very useful. I am from Montana and great value is placed on individual rights and responsibility. Augsburg (1992) also describes modern cultures as ego-centric, self-reliant, and autonomous and status is gained through individual achievement.

Although Ghana can be considered a traditional, high-context culture and the U.S. as a modern, low-context culture, a spectrum of different cultures can be found in each country. Specific cultural dynamics define, distinguish, and diversify communities. Duane (1997) describes three types of human communities: communities of place are people who share a physical space through geography, communities of identity are people who share social characteristics but may transcend place, and communities of interest are people who share commonalities in the way they relate to a particular ecosystem or resource as beneficiaries or contributors to its condition. These communities sometimes overlap and conflict (Duane, 1997). According to Bruce & Fortmann (1992, pg. 485), “many communities (of place) are divided by class, caste, religion,

ethnicity, gender, geographical origin, length of settlement, and even household cycle considerations.”

Like plant and animal communities, human communities play a role in the ecosystem as we value and use our landscape for survival. In a publication by the People and Natural Resources RD & A Program (1995, No. 2), a typology of human values illustrate how communities are tied to forests:

- Commodity values (timber, range, minerals).
- Amenity values (life style, scenery, wildlife).
- Environmental quality values (air and water quality)
- Ecological Values (habitat conservation, biodiversity, threatened and endangered species).
- Public use values (gathering, subsistence, recreation, tourism).
- Spiritual values (sacred places).
- Health (medicines)
- Security (sense of social continuity and heritage).

Different uses of trees have different degrees of relevance to different users (Raintree, 1991). As a result, multiple values for trees can be shared by communities or be mutually exclusive (Bruce & Fortmann, 1992). In Kulugungu, a growing tree can be seen by one community as beneficial to the farm by improving soil conditions and providing shade for the crops. On the other hand, trees can also be seen as an object to be removed to plant maize or millet to meet growing community demands for food. People from both of these camps can value the wood in the tree as the main source of fuel to

cook.

With the complexity of cultures, communities, and values for trees, forestry activities have varied through time and across landscapes. Activities in different countries have helped maintain ecosystem integrity but others have lead to landscape disturbance. Mono-cropping, maximizing unsustainable yields, and the tragedy of the commons (Hardin, 1968) have produced consequences that alarm a growing body of people. With so much reliance on forests, local communities and global organizations have started addressing the problems of mismanagement e.g., loss of soil fertility, land erosion, and fuel wood shortages with development intervention projects (Arnold, 1991).

In a review of development participation literature, Deshler and Sock (1985) found a prevalent belief that participation and the means to enhance participation are necessary elements in successful development efforts around the world. Participation literally means to take part, but in the context of development, participation primarily signifies sharing in an activity or process that was traditionally organized and implemented in hierarchical or exclusive ways (Thomas, 1994). Knowing organizational structures is important to understanding community forestry in general and in the specific

context of CCFI.

Barnard (1938) describes two types of organization. Formal organization involves the expected tasks and duties of its members and informal organization are behaviors that are integrated, but not an official part of the member's official responsibility. Formal and informal organizations can be structured either hierarchically or non-hierarchically and participation networks can be found in both structures (Stohl, 1995).

Formal organization participation systems are intentional and officially recognized decision-making processes (Seibold & Shea, 2001). Within this system, Stohl (1995) outlines two types of participatory structures. Intervention participation programs occur when a hierarchical task structure is softened but remains in place. Non-hierarchical organization is a system where participatory processes are embedded in organizational communication.

Informal participation systems are naturally occurring, spontaneous, flexible, and responsive (Stohl, 1995). Stohl outlines three types of participatory networks within this system. Task participation networks comprise linkages and practices that are rooted in work processes but go beyond those minimally necessary for carrying out one's job. Social participation networks emerge from

communication practices that are distinct from task-related duties. Occupational participation networks comprise linkages and communication practices that are rooted in one's work but transcend organizational boundaries to reflect and reinforce shared views.

Participation of individuals in formal and informal organizational can occur inside and outside the workplace. Employee participation is joint decision making with managers on work activities and other aspects of organizational functioning traditionally the responsibility or prerogative of management (Siebold & Shea, 2001). Citizen participation is considered to be a part of the democratic heritage and puts the citizen as the ultimate voice in decision making (Burke, 1975). Participatory leadership solicits and elicits employee/citizen involvement and collaboration and facilitates a climate of cooperation (Stohl, 1995).

In Deshler and Sock's (1985) research, two levels of participation were distinguished: pseudo participation and genuine participation. Pseudo-participation serves to consult and placate communities but decision making power rests exclusively with the project administrators. Genuine participation is where people and the project administrators work cooperatively and communities are empowered to control the action to be taken (White, 1994).

In theory, community forestry is meant to provide communities of place genuine participation in the stewardship of trees and forests. In rural settings, community forestry is meant to be an integral part of development and help the poor become self-reliant. It is 'grass roots' forestry for the people and involving the people (FAO, 1978).

According to Arnold (1991), community forestry was perceived as encompassing activities by individual households, farmers, and other people as well as those involving a community as a whole. In urban settings, community forestry is the proper care for trees by concerned citizens. It is resident groups and grassroots organizations developing forest education programs through community outreach and involvement (U.S. Department of Agriculture, 1993).

The value of local participation in forestry activities grows from the interrelationships communities of place have with the forests e.g., indigenous knowledge, varying local uses, etc. For example, in a comparative study in Indonesia and the Philippines, Belsky (1993) found that decisions to cultivate trees, which trees to grow, and how trees interacted with annual crops needed to be related to the regional socio-ecological history.

In practice, however, many community forestry projects fall

short of genuine participation. Projects are often designed and implemented by intervening outside agencies with assistance from local people rather than the other way around. This can lead to improper social assessment and generalized solutions that miss the situation-specific needs and capacities of local communities (Arnold, 1991). Arnold lists four lessons that emerged early in the period of forestry intervention:

- Production and use of trees at the village level is in practice often embedded in complex resource and social systems and require situation-specific approaches and are unlikely to be successfully tackled by generalized solutions.
- Analysis of the nature of people's dependence on trees and tree products can be incorrect leading to inappropriate solutions.
- Projects which have sought to identify local needs, aspirations and possibilities have in practice done on the basis of the views of planners and others from outside than on the local people themselves.
- Community forestry has suffered from considerable confusion and lack of clarity as to its nature and purpose.

Lessons like these clearly reflect the challenges of community forestry activities in combination with diverse cultures and communities in varying ecological contexts. In the past decade, community forestry projects have stressed the importance of community participation in forestry development activities with mixed results.

In the following study, I analyzed the organization of CCFI to

identify the specific participatory structures CCFI employed to devolve authority to local communities. I found many ways CCFI successfully organized to empower communities and plant trees. I also found certain organizational structures, designed to encourage tree planting, that hindered forestry development projects implemented in the field. I also look at how one community responded to this kind of organizational barrier by organizing PLANT. The scope of this study also describes the PLANT project as it was applied to the community of Missoula, Montana in the United States. It describes the different forms of the project as it emerged in a completely different cultural and ecological context.

Methodology

CCFI was a collaboration between the Government of Ghana, the Adventist Development and Relief Agency (ADRA), the U.S. Peace Corps, and rural communities throughout Ghana with the stated goal of checking environmental degradation in the area.

I gained entry into CCFI by serving as a Peace Corps volunteer (PCV). During my service, I was stationed in one of the local communities as manager of a tree nursery. I conducted participant observations during field work, extension activities, community meetings, and annual training and CCFI workshop events.

My position was well suited for a study of this type as the PCV's in CCFI were charged with linking the external collaborators with the communities of place. In this capacity, I was able to observe the different organizational structures as they were planned and initiated and how they emerged in the general collaboration and in particular communities. I visited several of the other CCFI community nurseries and conducted informal interviews with different stakeholders to gain a sense of the organizational structures beyond the context of the community where I served.

Immersion in the project at the local level gave me the opportunity to learn the situational specifics of how people depend and use trees and how they organize relative to their culture.

Collaborative Community Forestry Initiative

According to the Project Plan for CCFI (1997, pg 1), the host country perceived that:

Ghana has been heavily impacted by periodic drought conditions, overgrazing, heavy fuel wood demands, uncontrolled bush burning and conversion rates of forested lands to farm lands. The net result has been an overall reduction in the soil fertility, a corresponding decline in food production, a shortage of fuel wood, a lowering of the water table and accelerated deforestation. Ghana has lost 75% of her tree cover during the past century.

In attempt to address this situation, USAID provided funding for CCFI. The CCFI plan started in 1987 during a Natural Resource and Food Aid Workshop in Mombasa, Kenya. At the workshop,

participants from the Ghanaian Ministry of Food and Agriculture and Department of Forestry discussed the environmental problems in Ghana and the possible responses. After the Kenya workshop, subsequent project identification and design workshops were held in Accra, Ghana. As a result, CCFI was organized and implemented in 1988.

CCFI identified the cause of Ghana's forest resource problems as stemming from the absence of individual and community environmental awareness and responsibility (CCFI, 1997). To address these problems, CCFI planned three objectives:

- 1) Establish community tree nurseries (e.g., fencing, wells, office space).
- 2) Build the capacity of tree nurseries through technical and management training (e.g., agro forestry training & accounting).
- 3) Make the tree nurseries self-sufficient (i.e., economic and restorative sustainability).

Most of the genuine participation in this project rested with ADRA. ADRA is an international organization working in developing countries to promote sustainable living. ADRA was the "lead collaborator" and responsible for the primary coordination of all collaborating agencies (CCFI, 1997). ADRA was responsible for most financial management of CCFI, housing and transportation for participants, assistance to PCVs, funding small projects, facilitating training for PCV pre-service and in-service training requirements,

organizing community tree out-planting groups, coordinating annual review workshops, and continuing education of the tree nursery staff (CCFI, 1997).

The government of Ghana had an active role planning the project (CCFI, 1997). Most of Ghana's governmental presence in the project involved the Ministries of Forestry and Agriculture and the Department of Forestry. The tasks of these agencies in the collaboration centered around educational campaigns and providing technical support (e.g., soil and cover sampling, demarcating plots, agro forestry techniques). These agencies also recommended sites for the community nurseries and occasionally provided transportation for seedlings and materials.

The Peace Corps is an independent branch of the State Department of the U.S. government that sponsors international relations and development programs by placing volunteers overseas. In the CCFI project, Peace Corps-Ghana was responsible for placing and supporting volunteers as managers for each community tree nursery. PCV's were tasked with the day to day management of the individual nursery operation. They had direct decision making authority on issues such as selecting the nursery site and designing nursery extension activities. They were also in

the position to apply for and receive small the grants for secondary community projects.

The individual communities were charged with generating local support for the project. A small group of people from each collaborating community conducted the daily tasks of running the nursery. Each community nursery had a Foreman, and Extensionist, and three to four workers. Their mission was to be prepared for “phase-over”: the incremental withdrawal of material (e.g., poly sacks, seeds, food aid) and financial (e.g., funds for the community nursery workers) support.

Kulugungu CCFI

I was placed in Kulugungu, one of the 31 rural communities of place participating in CCFI. Kulugungu is located in the Ghana's Upper East Region in the Sudan Savannah Zone. The area around Kulugungu was beautiful but barren. Only a few trees dotted the landscape and dust and soil erosion was rampant. The rainy season lasted a few months and the dry season was hot and dry with temperatures peaking above 120 degrees Fahrenheit.

The CCFI project started in Kulugungu in 1994 and phased over in 2000. Four consecutive PCV's served throughout this time. I was the third PCV in Kulugungu and served from 1996-1998.

Conversations with the PCV's serving in Kulugungu before and after me, as well as with other RPCV's, have been essential to this study.

Results

CCFI was both a formal and informal organization of different communities and cultures. Each of the CCFI communities carried with them different sets of norms, attitudes, and beliefs. In the complexity of CCFI, the communities met some of its objectives but the same ecological and consequentially social problems persist (CCFI, 1997).

CCFI successfully established 31 tree nurseries in rural communities throughout the most environmentally stressed zones in Ghana. Each CCFI community nursery staff received intensive training programs and attended annual conferences. Each CCFI successfully germinated seedlings in the nursery and out planted these seedlings in the surrounding communities. But according to an independent report of the project (1997), none of the CCFI nurseries had achieved sustainability after 8 years of operation.

Many organizational participatory structures were created by CCFI. The chart on the following page breaks down these different structures in the major collaborating agencies:

Community Organizational Participatory Structures

	Type of <u>Community</u>	Organizational <u>context</u>	participatory <u>processes</u>
<u>CCFI:</u>	Of interest.	Formal, non-hierarchical. Informal.	Interventions. Task and occupational participation networks. Participatory leadership.
<u>Ghana:</u>	Of identity.	Formal, hierarchical.	Interventions.
<u>ADRA:</u>	Of interest. Of identity.	Formal, hierarchical.	Participative leadership. Interventions.
<u>Peace Corps:</u>	Of interest. Of identity.	Formal, hierarchical. Informal.	Employee participation. Task, social, and occupational networks.
<u>Kulugungu:</u>	Of place. Of identity. Of interest.	Formal, hierarchical. Informal.	Interventions. Task, social, and occupational networks. Citizen participation.

Foremost, CCFI is a community of interest based upon shared values of forestry rehabilitation. Formally, it is a non-hierarchical organization of hierarchical organizations and served as an intervention program for forestry development activities to local communities.

Informally, CCFI involved task and occupational participation networks. For example, task participation networks occurred as different community nurseries linked together with exchange programs so every worker at one site could visit, appreciate, help, and learn from the operation of another. An example of an occupational participation network in CCFI were training workshops

for CCFI participants in the integrated agro forestry facility in Porto Novo, Benin. Although rooted in the formal organization of CCFI, training in Benin transcended the organizational boundary (i.e., Ghana) of CCFI to reinforce the shared value of environmental rehabilitation in West Africa.

CCFI was also a structure of participative leadership. It solicited involvement in the project from the different participants through CCFI workshops and site visits to help facilitate a climate of cooperation and maximize input from the different communities. The following paragraphs describe the different communities cooperating in CCFI:

The Ghana Forestry Department and the Ministry of Food and Agriculture are communities of identity and interest and are formal, hierarchical organizations. These organizations have identity with the democratic government of Ghana and value responsible forestry development to meet the needs of the citizenry. To the hierarchy of these organizations, CCFI was an intervention participation program that softened decision making for forestry development projects in Ghana. Outside CCFI, these organizations kept their hierarchical structures.

ADRA is also a community of identity and interest. ADRA's

religious affiliation creates identity but shares an interest in planting trees for community development in developing countries.

Formally, ADRA in Ghana is hierarchical with a country director leading operations. In CCFI, ADRA assumed a participative leadership role as it organized and coordinated training workshops and conferences to promote involvement in the collaboration. Also, with the ability to award small grants for secondary projects within the communities, ADRA could empower the rural areas to design and implement genuine participatory projects at the grass-roots level. Some projects focused on secondary income for the nurseries like bee-keeping projects and poultry farms, and others diversified the National CCFI tree planting strategy by planting woodlots or establishing agro-forestry demonstration sites.

The Peace Corps is a community of identity and interest. PCV's have an identity with the government of the U.S. and also share in the value of international development. Because PCV's actually live in the rural communities, the Peace Corps also carried over into the community of place. Formally, the Peace Corps is a hierarchical organization but seeks employee participation of its staff and volunteers in the day to day operations to improve working conditions and morale. Informally, participation occurs across all the

participation networks. In task participation networks, PCV's often traveled to other nurseries and invited other PCV's and nursery staff to their respective sites. They also published a quarterly newsletter focusing on the issues of forestry development in the different rural communities. In occupational participation networks, PCV's attended conferences and looked beyond the resources of CCFI to promote mutual values. Some PCV's acquired grants from their home communities or other organizations not formally associated with CCFI. The social participation networks of the Peace Corps are legendary but not the subject of this study.

The local communities were the most diverse in terms of community. In Kulugungu, people were members of communities of varying interests, of varying identities (e.g., members from five different tribes inhabited the village), and, obviously, shared in the community of place. Formally, the communities are hierarchical with local chiefs subordinate to regional chiefs, subordinate to paramount chiefs. With the concept of the extended family, the formal organization of Kulugungu also took on a non-hierarchical structure as members beyond the immediate family were given equal status. Informally, the community was organized in an intricate web of all the participation networks.

Within and across each community culture varied. This cultural variation created challenges in CCFI as each participant adapted to the culture of each other. PCV's used to planned and balanced schedules in the U.S. needed to adapt to "Ghana time" where being 40 minutes late was culturally acceptable. The Ghanaian counterparts also had to adjust to the independent leadership styles of the PCV's and were sometimes confused with the competitive nature of the CCFI managers.

Discussion

CCFI brought several different communities together for the common value of planting trees. Each community valued trees in different ways. The international organizations identified reforestation as a step to a more stable global economy and ecology and the local communities identified tree planting as a strategy to help prevent failing crops and soil erosion. The organizational structure of CCFI facilitated a participatory environment aimed to build the capacity of different stakeholders to promote forest growth. But in the very process of organization, challenges to forestry development were created.

With the construction of the non-hierarchical organization of CCFI made with predominately hierarchical organizations, the

collaboration itself took on qualities of a centralized system.

The National CCFI committee was the highest decision making body within the CCFI project (Peace Corps, 1996) and was composed mainly of the collaborating agencies' national directors. Decisions were often made from this group in the same top to bottom fashion characteristic of a hierarchical organization. Also, with so much of the responsibility in the hands of ADRA, many of the specific afforestation strategies were developed outside the local communities. This led to two challenges. First, the problem and solution identification were too specific and centered too much around tree planting that other possible areas of development were left to secondary projects. Second, even though both the National CCFI Committee and ADRA made decisions based upon information from the rural communities, the tree planting strategies were often too generalized to meet specific cultural requirements. Designed to empower communities of place, the organizational structures themselves sometimes hindered this goal.

A good example of this was the organization of out-planting or "ADRA groups." This was one of ADRA's formal responsibilities. The basic scheme was to give incentives (e.g., USAID food aid) and technical assistance to farmers to buy trees from the CCFI

community nursery. This strategy was effective in some situations but broke down in others.

Around Kulugungu, ADRA was successful in mobilizing farmers into groups to buy trees from the community nursery. The agro forestry techniques ADRA disseminated to the farmer groups were in harmony with local agrarian goals (e.g., planting nitrogen fixing tree species with traditional crops to boost harvest yields). The proceeds from the ADRA groups composed the majority of the earnings for the community nursery project in the initial years.

Still, problems emerged that hindered genuine community forestry. The land tenure system, engendered environment (See Leach, 1991), and local needs varied spatially and changed through time and tribal and governmental structures. For example, individually the farmers were only able to buy seedlings after the local economy shifted to make the sale of food crops more profitable than using the crops to eat. This time varied year to year and from farm to farm and from tribe to tribe. As a consequence, most of the ADRA groups were able to buy seedlings only after the most strategic ecological opportunity, the start of the rainy season, had passed.

Earlier attempts to give the trees on credit and in time for the

rains broke down for two reasons. First, the best opportunity to plant trees also coincides with the best time to plant crops. Crops, valued more essentially by locals, were given priority and the tree seedlings, under protected in an ecologically stressed environment, suffered heavy losses. Farmers, not interested in paying for trees that did not survive, defaulted on their tree loans. The lack of seedling survival did little to encourage the ADRA groups, or other potential future tree farmers, from buying trees. Second, the value of participation with the project was more associated with the food aid than the trees that mostly didn't survive. The community nursery workers didn't believe that the ADRA groups would continue to buy seedlings after the food aid stopped. Even when the seedlings survived, the "why should I buy trees when my neighbor gets food aid and I do not?" mentality was difficult to argue with when marketing trees to farmers outside the ADRA groups.

The community of Kulugungu was powerless to change this organizational structure designed by ADRA. This structural barrier (See Wondolleck and Yaffee, 2000) was a paradox of design (Stohl & Cheney, 2001) and set limits on how people could participate in the forestry activities implemented in their communities. Several of these structural problems existed in CCFI. Even the language

describing sustainability became a barrier as each CCFI nursery attempted to achieve the specifics of this uniform goal in greatly varying circumstances.

Fortunately, embedded into the CCFI organization were intervention programs such as ADRA's ability to fund community projects. These projects could be locally researched by the CCFI community nursery and planned, implemented, and monitored by the nursery and ADRA, the funding agency. Many of the communities of place took advantage of this intervention program to diversify their community forestry project.

In these cases, the opportunity for genuine participation in community forestry was robust. Initiating genuine participation in this way allowed the local communities to adapt projects relative to their conditions of place. For example, many of the nurseries, especially in the North, had difficulty raising adequate funds to keep the project running (e.g., money for worker's wages, tree-seedling poly sacks, etc.) after phase-over. Receiving grants, the nurseries could diversify their income by buying material to farm dry season vegetables, or keep bees, or whatever else their situational specific context merited. The extra money earned from these projects could help make the tree business economically self reliant.

In Kulugungu, concern with the ADRA out planting strategy prompted action. In an area where desertification made for rapid, even dramatic changes in the local environment and society the generalized solutions of ADRA were not effective for maintaining seedling survival. The communities of Kulugungu were set in a land management system where intensely cultivated crop lands formed the common range of domesticated animals. “Bush” vegetation was in short supply. With less natural feeding sources, livestock often targeted crops to graze and small unprotected trees made nutritious browse. With these circumstances in mind, Kulugungu CCFI received a small grant in 1997 to buy fencing materials to protect an agro-forestry demonstration against livestock disturbance.

The project was an alley-cropping demonstration integrating nitrogen fixing woody perennials in rows with traditional crops. The project reflected the goals of three partners: The community tree nursery wanted to protect the trees against livestock disturbance and demonstrate how trees can be grown in mutually productive ways to prove the worth of their commodity for continuing marketing credibility. The farmer, who cultivated land in a desirable highly visible area, wanted to plant a healthy crop for her family's use. And the explicit goals and objectives of CCFI were advanced by this

partnership.

The design of the project was to have the community nursery provide and plant the seedlings and construct the fence. The farmer would benefit from the protective aspects of nitrogen fixing trees and share in the benefits of periodic harvesting the trees for fuel wood or building materials. She also benefited from the fence protecting her crop from grazing livestock. The nursery would benefit from the advertisement and receive half of the revenue from trees harvested from the rows. In theory, the community could disassemble the fence for reuse with other future partners.

A week after the farmer harvested her ground nuts, a bush fire stormed through the project. The sudden fire disturbance cleared the area of grass and brush and 97 % of newly planted seedlings.

Of course, assessing seedling survival rated the project as no more effective than the ADRA groups. The project from that point of view was a failure. But the Kulugungu CCFI team became aggressive in their adaptive management approach. They focused on the positive and shifted their goal orientation to make the project a success. This shift led to a revised paradigm of community forestry in the area.

With the landscape and society varying greatly across time and

spatial dimensions, community based forestry projects needed to adapt not only to situational specific conditions, but how the project organized in a rapidly changing environment. With the environment sometimes in turbulent motion, the organization, goals, and objectives of community forestry needed to be revised relative to the tempo of local change. By changing form and goal orientation, the partners harnessed the disturbance of the bushfire to maximize educational value. The project successfully helped people in the area understand the negative effects of bushfires. By using the “bush fire demonstration” to its maximum capacity, the project encouraged even more people to plant and protect trees.

This change in the project marked a shift from a formal organization intervention participation program to an informal organizational participatory network. The project afterwards adopted an adaptive and creative forestry stewardship style that changed forms and structures through time. The project started as an agro forestry demonstration but changed after the bush fire. The lessons of fire dynamics, resources of a concerned community, and continual changes in the environment later evolved the project as the stakeholders planned and revised the project to meet emergent goals. Trees were replanted incorporating the surviving seedlings

and the fence was repaired with community resources. From this informal organization, a formal, non-hierarchical organization between the land owner and CCFI tree nursery emerged as a partnership to change the project according to the goals of the stakeholders. Trees continue to be cultivated in the area in a shifting agro forestry system; some trees are harvested, others are planted.

PLANT in Kulugungu

This demonstration became the pilot project for PLANT, a program designed to adapt and change form relative to emerging social and ecological conditions. Observing the resiliency of the demonstration plot, other groups showed interest in the PLANT project and submitted proposals to Kulugungu CCFI nursery. This allowed the CCFI project in Kulugungu to move beyond the participants selected for the nursery and ADRA groups, to anyone who wanted to participate. After two years, two more grant proposals were funded by ADRA and established ten PLANT projects. As of January 2003, these projects continued to adapt beyond phase-over of the CCFI project. The following paragraphs illustrate the shifting goal orientation of five of the PLANT projects in Kulugungu. Each project started as an informal organization but evolved into a formally organized partnership between landowners

and the CCFI Kulugungu nursery:

PLANT with Kulugungu J.S.S.

A 50 by 75 meter plot was fenced prior to the rainy season in 1998 to establish an agro forestry training nursery on the grounds of the local secondary school. This project combined the out planting goals of the tree nursery with the educational goals of the school with the mutual value of harvesting fuel wood for sale or local use. The nitrogen fixing tree species lebbek (*Albizia lebbek*), and cassia, (*Cassia siamea*), were planted in alleys and around the perimeter to shade the ground and improve the soil for seasonal farming and future increased seedling production. Fruit bearing and indigenous tree species, cashew (*Anacardium occidentale*), mango (*Mangifera indica*), and mahogany (*Khaya senegalensis*) were planted throughout the plot. The money from harvesting the trees was agreed to be divided between the partners. The CCFI nursery would use the funds from the PLANT projects toward the sustainability of the tree nursery. The school would use the income to buy school and sports equipment for the participating students.

In this project, the students provided the labor to erect the fence and the nursery provided the initial seedlings and technical advice to start the training nursery. A member of the nursery staff would assist

a teacher to administer outdoor classes on soil building and composting, seed collection and pretreatment, seedling bed construction and germination, tree out planting and agro forestry, and proper pruning and fuel-wood harvesting at the site.

As time passed, some trees survived and others did not. Seedling mortality was due mainly to drought. Even with the fencing, only one out of three seedlings survived. Learning from what happened, the partners replanted the site to integrate emerging ideas. Because the crops failed from poor soil, lack of water, and lackluster management, the alleys were replanted in a revised design. The spacing between seedlings was reduced so hedgerows would take shape even with an anticipated 30% mortality rates. The rows were widened and alley space reduced in order to keep the effect of demonstrating alley cropping open to possible future vegetable gardening and to create more of a woodlot effect of cassia and lebbek to increase harvestable fuel wood and income potential.

The outdoor classes themselves also changed form. As time passed, the teaching of the agro forestry class was phased from a partnership with the nursery to a hierarchy of a classroom as the capacity of the J.S.S. teaching staff grew.

PLANT with Kulugungu Health Clinic

A 25 by 25 meter plot was fenced prior to the rainy season in 1998 to plant an arboretum on the grounds of the local health clinic. The project combined the out planting goals of the CCFI nursery with the value of shade patients shared as they rested under the hot savannah sun. Lebbek and cassia were intercropped with shade and other fruit and ornamental tree species such as guava (*Psidium guajava*), mahogany, mango, papaya (*Carica papaya*), and tropical almond (*Terminalia catappa*). Funds generated from harvesting the fuel wood from the woody nitrogen-fixers was agreed to be divided between the tree nursery and the health clinic. The clinic was allowed to keep all the fruit produced in the site and would use the money from sales of fuel wood to subsidize health costs for patients.

The nursery and health clinic staff erected the fence and planted the seedlings provided by the CCFI nursery. As time passed, all tree species died save a few mango, mahogany, and lebbek because of drought, poor soil conditions, and lack of participation on behalf of the health clinic. The partners also learned that shade was more valuable to the people rehabilitating or waiting in the yard of the clinic than fruit. As a result, the project was replanted in later years to maximize shade rather than maintain diversity of tree

species. The shade tree, flamboyant (*Delonix regia*), was the dominant tree species replanted and the project management shifted from partnership to tree nursery management in order to better maintain the project. A few nitrogen fixing trees were also replanted in the plot for greater fuel wood production and to build the soil.

PLANT with Awande

A 25 by 25 meter plot was fenced prior to the rainy season in 1998 to establish a cashew orchard on the Awande farm. The project combined the out planting goals of the CCFI nursery with the farmer's desire to grow cashew nuts for export through a local NGO. Lebbek tree species were intercropped with cashew seedlings. Proceeds from the lebbek timber was agreed to be divided between the nursery and farm.

The farm provided the labor to erect the fence and plant the seedlings provided by the CCFI nursery. As time passed, the NGO guaranteeing cashew nut purchases moved out of the area. To compensate, the project shifted to diversity fruit production for home use. Papaya, mango, and dawadawa (*Parkia clappertonia*) were planted and some cashew replanted.

PLANT with Seidu

A 25 by 25 meter plot was fenced prior to the rainy season in

1998 to establish a grafted Mango orchard on the Seidu farm. The project combined the out planting goals of the CCFI nursery with the farmer's desire to grow grafted Mangos for local sale. Lebbek tree species were intercropped with grafted mango seedlings. Proceeds from the lebbek timber was agreed to be divided between the nursery and farm.

The farm provided the labor to erect the fence and plant the seedling provided by the CCFI nursery. As time passed, all the grafted mango seedlings died because of drought and poor soil conditions. The project shifted to focus on fuel wood production and to build the soil for possible future grafted Mango tree growth. The entire plot was replanted with lebbek.

PLANT with K. Timbilla Sumailla

A 30 by 60 meter plot was fenced prior to the rainy season in 1999 to establish a subsidiary tree nursery on the Timbilla farm. The project combined the out planting goals of the CCFI nursery with the farmer's desire to grow trees for sale. Lebbek seedlings were intercropped with cashew, cassia, dawadawa, mahogany, mango, and papaya. A portion of the proceeds from the secondary nursery was agreed to be shared with the parent CCFI nursery.

The farm provided all of the labor and the CCFI nursery

provided the initial seedlings and equipment (i.e., poly sacks, seeds, tools, etc.) for nursery start up. As time passed, the nursery did well and expanded.

These projects avoided structural design barriers by empowering the participants to make land use decisions. Each PLANT partnership project in Kulugungu learned from previous activities and changed the design and form of the project to better suit the emerging conditions. Sometimes the change was successful. Participants learned early that lebbek was the most tolerant nitrogen fixing, wood producer to the local soil and environmental conditions. Replanting with lebbek usually produced higher survival rates. But in some cases, the redesign did no better applied in the field. But when participation would lag or goals change, the project design would again shift form and adapt.

Conclusion

Community forestry is complex with implicit dimensions of diverse cultures, communities, values, and structures of organization. Participation in forestry development varies in context and level of intensity relative to these dimensions. Understanding the organization of CCFI provides useful insights of how participatory structures may affect forestry development projects in the field.

PLANT

PLANT took root in the participatory structure of CCFI. It grew in order to bypass the structural and organizational barriers within CCFI that hindered situation appropriate out planting efforts. PLANT helped diversify participation in the CCFI project around Kulugungu with a context specific, adaptive management approach that placed value with trees rather than food aid. With its adaptive management style, PLANT can be used as a form of participatory leadership to assess and initiate projects in community forestry development in other cultural and ecological contexts.

According to Deshler and Sock (1985), “concepts, measures and indicators of rural development participation are lacking, as are theories, definitions and conceptual framework” (White, 1995).

PLANT can be used as a conceptual framework to study community forestry. The acronym PLANT can be useful to assess existing structures of forestry activities and promote new structures of participation in community forestry:

P - People: Who are the people? What are their values? What are their organizational structures? Who is participating in forest management? Who is not? Who owns the land? Who benefits from the forest or is affected by forest disturbance?

L - Learning: What are the specific culture and ecosystem dynamics? How does this change? How is land managed? What are the specific human and natural values? How do they relate? What learning strategies are present?

A - How can environmental learning increase? How can people behave for mutual social and environmental gain? What initial strategies can be implemented for a community forestry project. Should it be implemented? How can the project change to meet emerging culture and ecosystem changes? How can trees be planted in a mutually beneficial manner? What is an appropriate forestry project plan for your community?

N = How do trees benefit people? What conditions are complimentary for health tree growth? How may trees be harvested to benefit people? How may people foster tree growth?

T = Trees: What trees are indigenous? What trees can grow naturally? What trees can grow with cultivation? What trees cannot grow. What is the understory vegetation?

Field notes using this framework can define the structures of community forestry in place and the participatory process embedded in the organizational context. It can also serve as an assessment tool to implement adaptive forestry activities to generate a context of community forestry for study. According to Emerson, Fretz, & Shaw (1995), "ethnographic immersion precludes conducting field research as a detached, passive observer; the field researcher can only get close to the lives of these studied by actively participating in their day-to-day affairs." This is particularly important with the context specific nature of community forestry. By identifying participatory practices embedded into organizations, PLANT can study community forestry where it exists. By initiating community forestry activities through participatory leadership,

PLANT can also study participation in forestry development where it does not yet exist.

PLANT in Missoula

To test the adaptability of PLANT, I applied the methodology to a much different cultural and ecological context. PLANT in Missoula first took root in 1999. With unique ecological and social conditions, PLANT in Missoula differed greatly from PLANT in Kulugungu. In the urban setting of a city in a developed country, PLANT did not need to protect trees from livestock or intercrop them with a subsistence plant. Instead, PLANT is implementing partnerships that reflect the unique value structure of trees in the complex community of Missoula. Communities within Missoula range from private logging communities, to the USDA, to environmental action groups. Unlike Kulugungu, the area around Missoula is rich in forests. Values for trees range from commodity to aesthetic and recreational. Although positions on the management of trees often conflict between the communities of Missoula, they all form a community of place and a community of interest by mutually valuing trees. Volunteering, environmental awareness, and native planting are other values that have influenced the design of PLANT projects in Missoula

Like in Kulugungu, the opportunity for community forestry in

Missoula is both encouraged and hindered by the organizations in place. For example, participants in the public review process needed in an environmental impact statement for the U.S. Forest Service does increase participation in the consideration for natural resource decisions but does not allow for genuine participant decision making.

PLANT in Missoula works within the particular structures of participation in place in the formal organizations while creating informal partnerships with varying participatory networks to satisfy mutual goals. For example, "PLANT in the Franklin Neighborhood" is an informal participation system that uses task networks to recycle local materials for community tree planting. Volunteers use woodchips provided by the Missoula Parks and Recreation Department and local tree services to build a community compost cooperation with participating neighbors. Recycled plastic containers and the community compost are used to germinate locally gathered tree seeds during educational outreach projects to schools. The seedlings produced in these projects are planted in the Missoula community. In one project, the Franklin School Flagship program planted ten of these "community trees" and several indigenous plants in an after school prevention program in the Spring of 2002. By

planting trees, the students adopted a trail in the city and learned about the regional environment.

“PLANT with The University of Montana” is a task participation network that encourages service learning in and beyond the classroom. Students are empowered by the participant leadership of groups like the UM Chapter of the Golden Key Honor Society. People are able to plant trees and participate in community forestry development activities as Golden Key members organize projects based on the input of participants. To date, PLANT with the University of Montana has reached over 30 classrooms and over a thousand students in its various forms and structures. It serves as a method to study community forestry participation and a means to empower the individual as stewards of the urban forest.

The Jeet Kune Do of Adaptive Community Forestry Management

In order adapt to emerging conditions, PLANT transcends organizational structures and merges the processes of learning, organizing, planning, implementing, and monitoring in the stewardship of trees and forests. This approach is similar to the art of Jeet Kune Do.

In the book, the Tao of Jeet Kune Do, Lee (1975) emphasizes learning as a continual process. He encourages a style that is

formlessness so that it can assume all forms. Lee explains that styles must be adopted or discarded based on changing circumstances.

In this tradition, PLANT is highly adaptive and can adopt or discard organizational structures based upon emerging values and opportunity. PLANT may occur within or between existing organizations or be the start of another. Each PLANT project is unique and changing. A PLANT project can be a small business enterprise, a non-profit organization, or assume any form. PLANT projects can also change form to meet emerging conditions.

The ability to assume formlessness in community forestry comes from a knowledge of form. Knowing modern and traditional land management practices and learning the various structures people use to organize and understanding the changing dynamics of the culture and ecosystem will help the community forestry leader and scholar develop effective community forestry practices.

PLANT is empowered not just by an awareness of the cultural and ecological environment, but also by the capacity of the participants, and the freeness of form. Linkages between complex communities can increase the potential ability of community forestry projects.

Cestero (1999) offers several practices to constructive collaboration in the devolution process: Start small and use a building block approach, maintain an inclusive process to maximize participation, ensure a level playing field, engage government agency personnel to solicit their knowledge and resources, build linkages beyond the local community to gain expert knowledge and create access to potential financial and technical assistance. Duane (1997) suggests a process that “incorporates the values of relevant interests while retaining the necessary injection of expertise and implementation authority.” Many styles of facilitation and adaptive management exist in different contexts. The art of community forestry lies in choosing the organizational form and informal styles that best promotes genuine participation. According to Snow (2001),

. . . informality adds to the sense that involvement in a given collaborative is voluntary and experimental. Tentative members of the group thus feel that they can opt out at any time and that decisions are not apt to be binding. These hallmark features of informality lend an air of flexibility and experimentation to the effort.

PLANT has a lot of room to grow. More research is needed to understand how PLANT may adapt and operate in different cultures and ecosystems. The attached PLANT field guide is designed for people interested in community forestry leadership.

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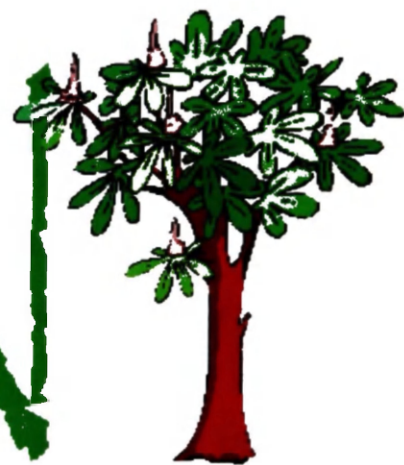
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PLANT



people learning and nurturing trees

Among the neighbors in our ecosystem, trees and people share a special bond. Trees provide habitat for people and people nurture trees to increase value in the landscape.

This document is for people learning and nurturing trees (PLANT). PLANT is a way people can organize community forestry initiatives across cultures and ecosystems. Read through the story initially and think about the questions and examples. Then, as you fill in the answers and field notes, you will begin to compile your local reference to PLANT.

This guide is designed to grow. As it does, you will build a contact list, develop an assessment of your cultural and ecological community, and discover resources to help facilitate forestry projects in your community.

PLANT projects are like trees. They grow from the ground up and they adapt to and influence the surrounding communities. The roots of PLANT are the people involved in the project and the branches are the initiatives in the field. No project is the same. PLANT can increase productivity on a farm, educate a classroom, or simply celebrate our relationship with trees.

PLANT begins as a seed in the minds of people. It grows when we share knowledge about our environment and cooperate for the good of our society and landscape. PLANT propagates by encouraging participation in projects that plant and care for trees and forests. PLANT!



PLANT



with

Write your name here.

Tree of Content



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We are people.



People vary in the way we look and sound, the way we act and sense the world around.



Tall and short, old and young, we vary in colors and beliefs. We are influenced by unique circumstances making us all equally unique.



Yet we are all just as similar as we share the common distinction of being people.



Who are you?

What is your daily, weekly, and yearly schedule?



(For example, a farmer has a variety of weekly tasks that daily start and stop. Through the year these change as she plants, nurtures, and harvests her crop.)



People have culture.

We communicate and share ourselves in many different ways. Who we are as just one person and together when we play.



People are our friends and family and those we will never know. When we explore who we are our relationships grow.

With individual strength and skill we may fill our needs, cooperating together we increase our potential to succeed!



Who are the people in your culture?

Name _____ address _____ contact numbers _____ other _____

List the following:

- Friends:
- Teachers:
- Newspapers:
- Radio station:
- Television station:
- Government representatives:
- Community elders:
- Local environmental groups:
- Other people:



People live in ecosystems.



To sustain ourselves we act on land and
in ocean. We are active because
everything is motion.

Who are the people in your community
that know and work with the environment?

Name address contact numbers other

Forester:

Community

gardeners

Farmer:

Biology:

Naturalist

Tree nursery:

Land planner:

Other:



Our relationships
extend beyond
just people in a
village or city,
they are tied with
the with the
environment and
the plant and
animal community.



Through time, people grow in evolution.



Around the sun our earth is in revolution.



Name address contact numbers other

Science

students:

Science

teacher

Land managers:

Other people:



We are people

(homo Sapiens.)

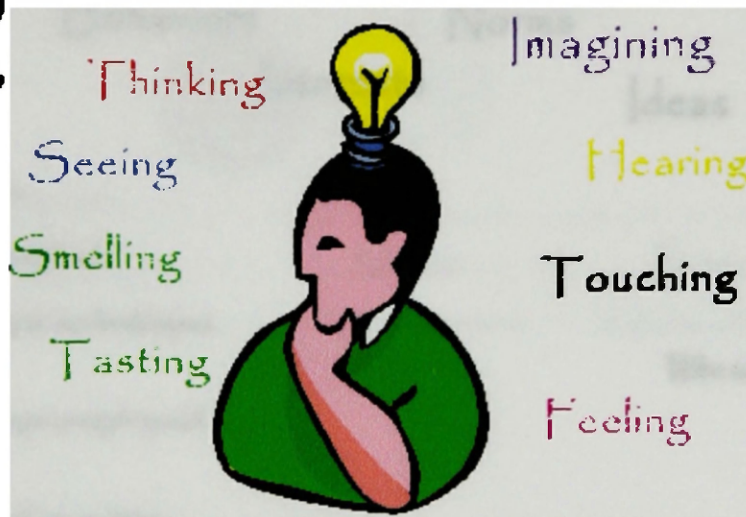


We discover the world using all our senses. We live meaningfully in past, present, and future tenses.



Learning is a process to develop us. It is continuous and sometimes laborious. The rewards of learning are generous.

learning.



We learn how culture and ecosystems relate and the knowledge we earn decides our very fate.

How do your culture and ecosystem relate?

(Example)

*When we move and when we stay,
when to work and when to pray,
when we feast and when we fast,
how we may live to make it last.*



*What we farm and what we shoot,
what we drive and what we pollute,
what we build and what we blast,
how we may live to make it last.*

Learning about culture.



Culture is changing and complex, the dynamics of our personalities in a collective context.

Shared and mutually exclusive: Beliefs Dislikes



Symbols Values Behaviors Norms Interests Ideas



Describe your culture:

(Examples:)

Seeing *Beauty in our landscapes.*

| *Languages people speak.*

Smelling *Scent of our cooking.*

Touching *Tools to work.*

Tasting *Flavor in our food.*

Thinking *Probabilities for fate.*

Imagining *Ideas for play.*

Feeling *Emotions for each other.*

Who is in charge of the land?



How do people value trees and forests in your culture?



Learning about ecosystems.



Ecosystems are changing and complex, the dynamics of our environment in a collective context.

Dynamics
Mass
Energy

Space

Time



Describe your ecosystem:

	Energy	Mass	Space	Time
<i>(Example:)</i> Seeing	<i>Light from the sun.</i>	<i>Size of mountains.</i>	<i>Expanse of forest.</i>	<i>Change in seasons.</i>

Smelling

Touching

Tasting

Thinking

Imagining

Feeling



Longitude and latitude:
Elevation and slope:
Available light:
Available water:
Average temperature:
Soil quality:

We are people learning and nurturing.



Nurturing is a science and art. Only with understanding can we start. For what one thing a person or plant may need, another may the same thing impeded. We respect these differences in life, and make choices that unite!

How do you nurture your ecosystem and how does your ecosystem nurture you?

Nurturing culture.

We value
each other
and benefit
from our
cultural
diversity.

We work
together to
ensure our
mutual
stability.

We enjoy
our lives
together
with playful
ability.



How can we communicate and organize?



What makes activities interesting and fun?

How can trees fulfill our needs?

How can trees be harvested for educational benefits?

Nurturing ecosystems.



We value our
ecosystems
and benefit
from
biodiversity.

We work with
the land to
ensure our
mutual
stability.

We enjoy
our world
together in
playful
mobility.

How does our behavior affect our ecosystem?

What promotes a healthy ecosystem?

How can trees be grown to improve the environment?

How can trees be harvested to improve the environment?



Where can we find water?

How can we build better soil?

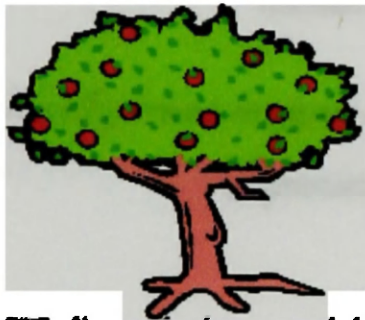
How can change the amount of light?

Where can we find tree seeds?

We are people learning



and nurturing trees.



Tall and short, old and young, varied in colors and leaves, trees are influenced by unique circumstances making them all equally unique.

What are your favorite trees?

Trees vary in the way they look and sound, and the way they grow from the ground.



Yet they are all just as similar as they share the common distinction of being trees.

Species name

Values

What are the benefits you receive from trees?



Trees and culture.



Trees help us breathe and keep us cool from the sun. Trees are the home of our wildlife and a playground for our fun. Trees we use to build our homes and write down our story, trees are in our legends and give us higher glory. Trees also foster plants that give us lots of stuff, so together we nurture trees so we'll always have enough.

Identify trees in your area important to culture.

Species name Description of tree Use in culture



Trees live in ecosystems.

To sustain themselves trees act on land and by ocean. They are active because everything is motion.

Their relationships extend beyond just the forest community, they are tied with people's lives in the village and the city.

Species name Description of tree Use in ecosystem
What trees grow in your area?

What trees may grow in your area?

What trees cannot grow in your area?



We are people learning AND nurturing trees.

And we work
together to
understand and
improve our
environment.



The values of
trees and
people are the
basis of our
assignment.

Go back and use the resources you've collected. How can you improve your culture and ecosystem with trees?

And PLANT!

Draw your project tree.

PLANT in Kulugungu

(Examples)

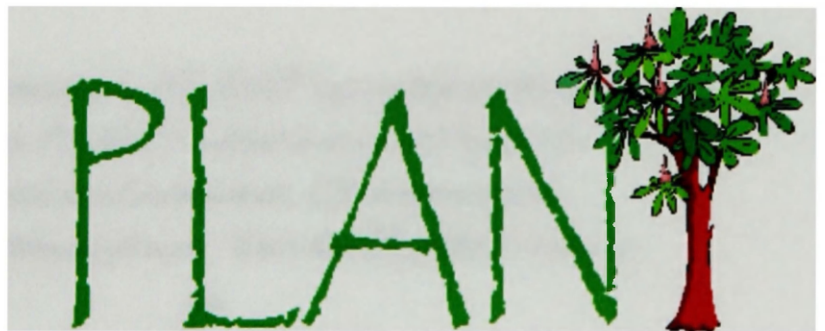
PLANT in Missoula

And grow.

Field notes:

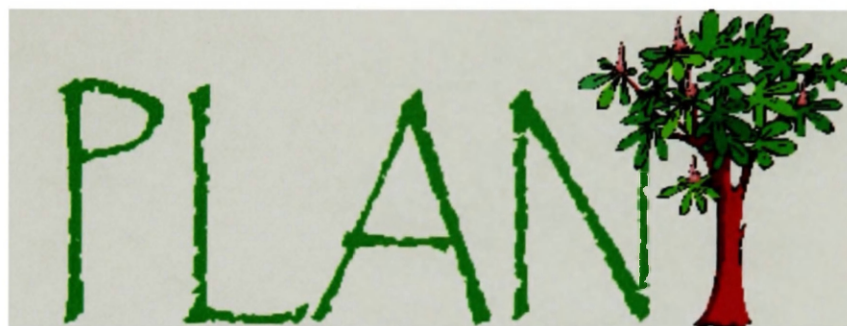
*What are some considerations
for future **PLANT** activities?*

*How can you get others
involved with people learning
and nurturing trees?*



People learning and nurturing trees.

(Your name and address:)



People learning and nursing trees.

2023 S. 14th. St. W.

Missoula, MT 59801

USA

Earth

*Please send comments to PLANT by writing on the back,
folding so the PLANT address is correctly on the
displayed and send in the mail. Or contact us at
plantinmissoula@hotmail.com. Visit the PLANT website*

at

www.p-l-a-n-t.org

Thank you from PLANT!